WHAT IS CLAIMED IS:

1. An annular apparatus comprising:

a transponder;

an annular antenna coupled to the transponder;

a carrier strip formed of non-conductive material at least partially encapsulating the antenna and the transponder to maintain the antenna in a prescribed orientation relative to the transponder.

2. An apparatus according to claim 1, wherein the carrier strip substantially encapsulates the entirety of the annular antenna.

3. An apparatus according to claim 1, wherein further comprising a toroidal body composed of material having high electromagnetic permeability coupled to the transponder and the antenna.

4. An apparatus according to claim 3, wherein the toroidal body and the transponder reside within a common housing and the carrier strip maintains a preferred orientation of the housing relative to the antenna.

5. An apparatus according to claim 1, wherein the carrier strip maintains the transponder in a prescribed orientation.

6. An apparatus according to claim 1, wherein the carrier strip renders the apparatus a unitary assembly.

7. An apparatus according to claim 1, wherein the apparatus includes an annular lower sidewall region of a complementarily sized tire.

8. An apparatus according to claim 7, wherein the tire mounts to a wheel rim and the lower sidewall region of the tire is located a distance above an upper boundary surface of the wheel rim.

9. An apparatus according to claim 8, wherein the lower sidewall region resides within a bounded annular surface lying between ten to thirty millimeters above the upper surface of the wheel rim.

10. An annular apparatus comprising:

a transponder for monitoring at least one parameter in a tire;

an annular antenna coupled to the transponder;

a carrier strip formed of non-conductive material at least partially encapsulating the antenna and the transponder to maintain the antenna in coupled relationship with the transponder.

11. An apparatus according to claim 10 wherein the antenna comprises a continuous loop of substantially circular configuration.

12. An apparatus according to claim 11, wherein the antenna loop comprises a multi-filament strand of conductive wires.

13. An apparatus according to claim 10, further comprising attachment means for affixing the apparatus to a sidewall region of a tire.

14. An apparatus according to claim 13, wherein the attachment means comprises an adhesive material.

15. An apparatus according to claim 13, wherein the apparatus is removable from the sidewall region of the tire.

16. An apparatus according to claim 13, wherein the sidewall region of the tire at least partially overlaps a bounded annular surface residing between ten to thirty millimeters above an upper surface of a wheel rim to which the tire mounts.

17. A method for mounting an annular antenna and transponder to a tire, comprising the steps:

providing an annular antenna;

coupling a transponder to the annular antenna;

encapsulating at least part of the antenna and transponder within a carrier strip of non-conductive material to create a ring assembly; and

attaching the ring assembly to a sidewall region of the tire.

18. A method according to claim 17 comprising the further step of sizing the ring assembly antenna to overlap a bounded annular surface between ten to thirty millimeters above an upper surface of a wheel rim to which the tire mounts.

19. A method according to claim 17 comprising the further step of magnetically coupling the transponder to the antenna through a toroidal body composed of material of high electromagnetic permeability.

20. An annular apparatus according to claim 19, further comprising the step of housing the transponder and the toroidal body in a common housing.